

the claimed invention. Specifically, Ellinas, col. 5, lines 35-38, states:

The data signals that would normally use the failed switch are re-routed on a path made of protection fibers until they reach the other side of the node within the failed switch.

Thus, in Ellinas the protection route for a router *includes* the router for which the protection is designed.

By contrast, the router table of Claims 11, 29 and 30 that defines the alternative route around the protected node, is associated with a protecting router, *not* the failed router itself. The routers in the alternative route, as noted at page 4, lines 15-16, *intercept* all traffic flows through the router whose failure is being protected against and therefore cannot route data *within the node* as required by Ellinas. Thus, Claims 11, 29 and 30, and all claims dependent on them, are directed to a non-obvious invention over Ellinas.

A detailed review of Ellinas' Figures 3A-6 again show the difference between his system and the claimed invention. These figures each deal with an individual node. It can be seen that, for each node, the protection routes protecting against the failure of the node go out of and return to the node, see e.g. element 413. Connection is through interconnecting protection fibers located within the node. See e.g. col. 10, line 58- col. 11, line 25. Hence, the protection route inherently *includes* the node (router). Thus, the protection route cannot be considered to be "around an adjacent router to the protecting router in case of failure of the adjacent router".

The Examiner cited Figures 13 and 14 as showing the above feature of claims 11, 29 and 30. However, as can be seen clearly from Figure 13, the cycle groups (protection cycles) for node 2 *includes* node 2.

Similarly, although Ellinas' cycle 231 (Fig. 2A, col. 9-11) encircles node 211, and this path is associated

with node 211, there is no suggestion in Ellinas that the cycle 231 is defined by an entry in a router table at a *protecting router* (i.e., a router within the cycle 231). If there is such a statement, the Applicant asks that it be identified with specificity in the reply to this paper.

Again, in comparison, independent Claims 11, 29 and 30 each require "the router table having an entry identifying an alternative route around an adjacent router to the protecting router in case of failure of the *adjacent router*".

Thus these claims are directed to an invention that, in view of the prior art, is patentably distinct.

Independent Claim 17 requires "an ID field that specifies a cycle of routers in which the routers in the cycle are all adjacent a router not in the cycle". Again, Ellinas does not show this because in Ellinas the protection route includes the failed node. The examiner cites col. 18, lines 30-50, but this section, first, does not deal with ID fields of messages, and, second, the table deals with how the protection switches within network nodes 2 and 4 are interconnected. This has nothing to do with a message having within it a specified route that forms a cycle in which the routers in the cycle are all adjacent a router not in the cycle. Nothing in Ellinas suggests a message having the claimed ID field.

Independent Claim 20 is patentable for like reasons over Ellinas, and also it is evident from the above discussion that nothing in Ellinas discusses (A) the notion of a protecting router having an entry identifying a cycle of routers. Ellinas does not use protecting routers at all. Further, Ellinas does not teach (B) the cycle forming an alternative route around an adjacent router to the protecting router. In Ellinas the protecting cycle includes the node being protected. Even further removed from Ellinas is any suggestion that (C) the cycle of routers includes all routers directly connected to the adjacent router and not the adjacent

router. Ellinas has no conception of the idea of such a structure that is capable of intercepting all traffic flows to the failed router. In short, Ellinas contains none of these three salient features of Claim 20.

For the reasons set forth above, Ellinas similarly does not suggest a router having the features of the protecting router recited by independent Claim 14.

Discussion of the remaining claims is superfluous in view of the irrelevance of Ellinas to the independent claims.

Therefore, it is respectfully submitted that all claims are patentable. Since the claims, as well as the other parts of this application are in an allowable state, the Applicants courteously solicit prompt issuance of a Notice of Allowance.

Respectfully submitted,

  
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